

L. Shklover
ACC NR: AP6011570

A study of the effect of transparency (concentration) of the gallium phthalocyanine chloride solution on the energy output of a single pulse indicated a maximum energy (~0.75 j) at about 20% transmission. A decrease in the energy output with decreasing transparency below 20% was attributed to a lowering of the cavity Q because of absorption of energy of a giant pulse by the phthalocyanine molecules in the ground and excited states.

In conclusion, the authors thank V. K. Kolesnikova, V. N. Gavrilov, and V. V. Kozlov for assistance.

COMMENT: A limited search of the Soviet literature published in 1964-66 failed to reveal the association of the authors of the article reviewed. The association of the other Soviet scientists mentioned in this note could not be ascertained at the present time. However, other sources indicate that in 1965, L. P. Shklover was associated with the All-Union Institute of Chemical Reagents and in 1963, with the Moscow Institute of Fine Chemical Technology. Information published after the reviewed article on further Soviet progress in the application of phthalocyanines in the passive-switched ruby lasers was reported in the ATD Press. ~~The authors thank V. K. Kolesnikova, V. N. Gavrilov, and V. V. Kozlov for assistance.~~ Orig. art. has: 2 figures and 1 table.
[FSB: v. 2, no. 10]

SUB CODE: 20 / SUBM DATE: 12Jul65 / ORIG REF: 002 / OTH REF: 003
Card 5/5

SOURCE CODE: UR/0368/66/005/005/0609/0613

ACC NR: AP6036813

AUTHOR: Borovitskiy, S. I.; Gryaznov, Yu. M.; Chastov, A. A.

ORG: none

TITLE: The width of the emission spectrum of a ruby laser with a bleaching liquid Q switch

SOURCE: Zhurnal prikladnoy spektroskopii, v. 5, no. 5, 1966, 609-613

TOPIC TAGS: solid state laser, ruby laser, Q switching, passive switching, phthalocyanine, gallium chloride, selenium glass, cadmium glass/KS-18, KS-19

ABSTRACT: The width of the emission spectrum of a ruby laser with a passive Q-switch was investigated for various generation regimes. The block diagram of the experimental setup is shown in Fig. 1. The active substance consisted of a polished ruby rod 1 (120 mm long and 10 mm in diameter with plane-parallel ends). The semi-confocal cavity comprised one ~97% reflective (at 6925 Å) spherical mirror 3 with a 1000-mm radius of curvature and a stack of plane-parallel plates 4 placed in the focus of 3. The pumping was carried out by means of two IFP-2000 lamps, the pumping energy varying from 2 to 4 kJ. The optical switch 2 consisted of a phthalocyanine solution of gallium chloride in quinoline and was contained in a cell 5 mm thick with glass windows. The cell was tilted at a small angle to the laser axis. The transparency of the solution-filled cells used in the experiments was 25, 40, and 50%. The number

UDC: 621.375.9

Card 1/3

ACC NR: AP6036813

of giant laser pulses was recorded by an FEU-28 photomultiplier 5 and an oscillograph 6. An IT-51-30 Fabry-Perot wedge interferometer was used. Its plates were coated with a multilayered dielectric surface with a 91% reflectivity at 6943 Å. The experiments were carried out at h (interferometer base) of 10 and 30 mm and the interferometer resolution range at $h = 30$ mm was $3.3 \times 10^{-3} \text{ cm}^{-1}$. The interferometer was illuminated by a parallel light beam from a telescope 7 fixed on an OSK-3 optical bench. The interferometer output was recorded on film in a lensless camera 9. The interferometer was tuned by means of Ne-He laser 10, splitter plate 11, and diaphragm 12. The total width of the emission spectrum of a ruby was 0.02 cm^{-1} in the case of free generation. The emission spectrum of a Q-switched laser was considerably narrower and consisted of one component whose width (measured by an MF-2 microphotometer)

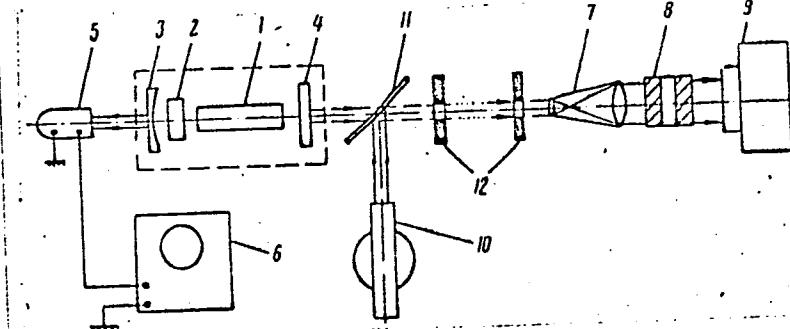


Fig. 1. Block-diagram of experimental setup

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(meter) was $5 \times 10^{-3} \text{ cm}^{-1}$. This is comparable to the spectral width of a giant pulse obtained by F. J. McClung and D. Weiner (IEEE, J. Quantum Electronics, 1, no. 2, 1965, 94), who used a rotating prism for Q-switching and plane-parallel plates and a cell with a cryptocyanine dye for mode selection. In the case of giant-pulse operation using a passive Q-switch, the number of spectral lines increases with the pumping energy, with the number of lines being equal to the number of giant pulses. No significant changes in the quality of interferograms was observed when the ruby rod was replaced with another specimen, although in the case of a plane-parallel cavity considerable changes were observed from ruby to ruby. Other substances, such as KS-18 and KS-19 Ba-Cd glass, were also investigated as passive switches. The width of the emission spectrum of a laser with a KS-19 filter was $\sim 7 \times 10^{-3} \text{ cm}^{-1}$, and its total width increased with the pumping energy. Orig. art. has: 2 formulas and 3 figures.

SUB CODE: 20 / SUBM DATE: 28Dec65 / ORIG REF: 003 / OTH REF: 003 / ATD PRESS: 5108

Card 3/3

Справка о реферате

USSR/Processes and Equipment for Chemical Industries - Control and Measuring Devices.
Automatic Regulation, K-2

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 64013

Author: Korobchanskiy, Ye. Ye., Gryaznov, Yu. N.

Institution: All Union Institute of Soda Industry

Title: Automation Means for Limekiln Shops of Soda Plants

Original

Periodical: Tr. Vses. in-ta sodovoy prom-sti, 1955, 8, No 109-118

Abstract: Report of the work of the All Union Institute of Soda Industry on automation of limekiln shops of soda plants. Data are presented concerning the performance of an experimental plant unit for automatic control and remote control operation of a limekiln and a proposed diagram of composite automation of the entire shop.

Card 1/1

L 19833-65 EWT(m) Pb-4 DIAAP/AFWL/ASD(a)-5/AMD/APTC(b)/KAEM(z) DM 21
ACCESSION NR: AP4049543 S/0089/64/017/005/0410/0412 B

AUTHORS: Garapov, E. F.; Gryaznov, Yu. N.; Dorofeyev, G. A.

TITLE: Errors in the calibration of Gamma dosimeters in a collimated beam 19

SOURCE: Atomnaya energiya, v. 17, no. 5, 1964, 410-412

TOPIC TAGS: radiation dosimetry, gamma detector, calibration spectrum

ABSTRACT: To study the errors due to the difference between test and laboratory conditions, the authors measured the variation in the radiation spectrum as a function of the aperture angle of the collimated beam, and of the distance between the detector and the source, with an aim at establishing a method for determining the contribution of the scattered radiation. The primary source was 2 x 2 cm of Co⁶⁰. The measurements were made with a standard calibration rule.

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L 19833-65

ACCESSION NR: AP4049543

The γ ray detector was an NaI(Tl) crystal measuring 40 x 40 mm with an FEU-13 photomultiplier, placed 100, 200, 300 and 400 cm from the source. For each distance, spectra were taken at collimating-channel diameters 8, 14, 30, 40, and 60 mm. The accuracy of the measurements is discussed. It is concluded on the basis of the results that the bulk of the stray radiation in a collimated beam is produced in the shielding material in the direct vicinity of the source. The use of a cavity with dimensions equal to or larger than the diameter of the collimating channel greatly reduces the stray radiation, so that channels with diameter larger than 30 mm can be used without a noticeable change in the γ ray intensity in the beam. Orig. art. has: 3 figures.

ASSOCIATION: None

SUBMITTED: 04Dec63

SUB CODE: NP, LS

NR REF SOV: 002

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ENCL: 00

OTHER: 000

Card 2/2

L 48812-61

EMT(r)/EMK(h)

ACCESSION NR: AP5008339

S/0115/65/000/001/0048/0050

AUTHOR: Barycheva, L. Ya.; Denisikov, A. I.; Dorofeyev, G. A.; 17
L'yova, M. A.; Bochkarev, V. V.; Garapov, E. F.; Gryaznov, Yu. N. B

TITLE: Comparison of various methods of activity measurements by beta and
gamma radiations

SOURCE: Izmeritel'naya tekhnika, no. 1, 1965, 48-50

TOPIC TAGS: radioactivity, radioactivity measurement, radioactive preparation

ABSTRACT: For evaluating the methods and accuracies of activity measure-
ments, a number of Co⁶⁰ and Fe⁶⁹ preparations were tested in the laboratories of
GK AE SSSR and Health Ministry SSSR. These methods were used: (1) Beta-
gamma coincidence (stilbene detector and NaI(Tl) crystal); (2) Gamma-gamma
coincidence; (3) Two 4 π -beta proportional flow counter; (4) End-window
counter; (5) Ionization chambers. The absolute measurements by methods 1, 2,
3, 4, 5

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L 48813-65
ACCESSION NR: AP5008339

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and 3 were found to be correct to within $\pm 1\%$. Measurements with F⁵⁹ were less accurate because of the low specific activity of solutions (gamma) and complicated decay mode (beta-gamma). Orig. art. has: 2 tables.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: NP

NO REF SOV: 005

OTHER: 003

Card 2/2

BARYCHEVA, L.Ya.; BOCHKAREV, V.V.; GARAPOV, E.F.; GRYAZNOV, Yu.N.;
DENISIKOV, A.I.; DOROFEEV, G.A.; L'VOVA, M.A.

Comparison of various methods for measuring radioactivity of
beta and gamma radiation sources. Izm. tekhn. no.1:48-50 Ja '65.
(MIRA 18:4)

L 3927-66 EWT(m)/EPF(c)/EPF(n)-2
ACCESSION NR: AT5022320

UR/3157/64/000/114/0003/0012
589.1.03.089.6

43
BT/1

AUTHOR: Garapov, E. F.; Gryaznov, Yu. N.

TITLE: Analysis of the gamma-gamma coincidence method used for standardizing cobalt-60 and sodium-22 radioactive sources /9

SOURCE: USSR. Gosudarstvennyy komitet po ispol'zovaniyu atomnoy energii. Doklady, no. 114, 1964. Analiz metoda gamma-gamma-sovpadeniy, primenyayemogo pri etalonirovaniyu radioaktivnykh istochnikov iz kobal'ta-60 i natriya-22, 3-12

TOPIC TAGS: radioactive source, cobalt, sodium, coincidence counting, gamma quantum

ABSTRACT: The coincidence method is well known at present as one of the techniques for absolute measurements of source activity (with an accuracy up to 1%). The article examines the special case of the gamma-gamma coincidence method, which records with independent counters two gamma quanta emitted simultaneously in a single event of decay of the radioactive nucleus, and events of their coincidence. The determination of the activity consists in measuring the channel counting rate n_1 and n_2 (see fig. 1 of the Enclosure), coincidence counting rate $n_{1,2}$, random coin-

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L 3927-66

ACCESSION NR: AT5022320

cidences $n_{1,2}$ rand, and background counting rate $n_{1,b}$, $n_{2,b}$, $n_{1,2,b}$. The number of random coincidences is determined by introducing a time delay into one of the channels. In order to reduce the number of random coincidences to a minimum, a coincidence circuit with a short resolving time must be used. A high degree of accuracy in the determination of the number of disintegrations in the source requires the introduction of corrections for (1) the efficiency of the recording of gamma quanta of different energies in each channel, (2) the angular correlation and the finite geometrical dimensions of the detector and source, and (3) counting losses due to the dead time of the apparatus. These three types of errors are discussed at length, and an example involving the determination of the activity of Co^{60} and Na^{22} is given. The method of introduction of corrections discussed can also be used for measuring the activity of sources prepared from other radioactive isotopes. Orig. art. has: 2 figures, 26 formulas.

ASSOCIATION: none

SUBMITTED: 02Nov64

ENCL: 01

SUB CODE: NP

NO REF SOV: 004

OTHER: 005

Card 2/3

L 3927-66
ACCESSION NR: AT5022320

O
ENCLOSURE: 01

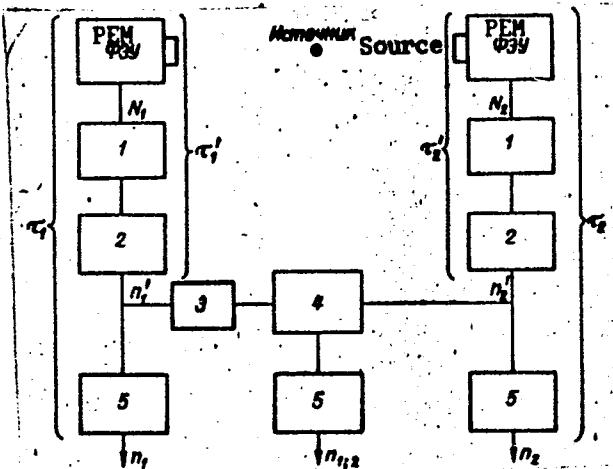


Fig. 1. Block diagram of electronic apparatus: 1--amplifiers; 2--integral or differential discriminators; 3--delay line; 4--double coincidence circuit; 5--scalers.

Card 3/3

GRYAZNOV, Yu.N., inzh.; KUKHAREV, I.D., inzh.; MARKELOV, V.A., inzh.

Device for measuring the quantity of material on a scrapar
conveyor. Mekh. i avtom. proizv. 19 no.7:30-32 J1 '65.
(MIRA 18:9)

KURTEMOV, M. M. & GRYAZNOVA, A. S.

Corrosion of stainless steels in solutions containing hydrofluoric acid. Trudy Kom. po bor'. s korr. met. no.2:59-68 '56.
(MLRA 10:2)

(Steel, Stainless--Corrosion) (Hydrofluoric acid)

GRYAZNOV, Yu.V., fel'dsher (Moskva)

Book review. Fel'd. i akush. 28 no.2:60 F'63. (MIRA 16:9)
(NO SUBJECT HEADINGS)

SOV/129-59-4-8/17

AUTHORS: Kurtepov, M.M. (Candidate of Technical Sciences) and
Gryaznova, A.S. (Engineer)

TITLE: Corrosion of Welded Joints of Stainless Steels in Acidic
Solutions (Korroziya svarnykh soyedineniy
nerzhaveyushchikh stalej v kislykh rastvorakh)

PERIODICAL: Metallovedeniye i Termicheskaya Obrabotka Metallov,
1959, Nr 4, pp 41-44 (USSR)

ABSTRACT: The authors studied the influence of various heat
treatment regimes on the corrosion resistance of welded
joints of the steel 1Kh18N9T produced by argon arc
welding. The following heat treatment regimes were
applied: quenching from 1050°C in water; stabilization
at 850°C for 3 hours followed by cooling in air. For
comparison the same experiments were also carried out
with non-heat-treated steel. On the basis of the
obtained results the authors arrived at the following
conclusions: 1) Heat treatment has a great influence
on the corrosion properties of welded joints. Joints
which had not been heat-treated or hardened had higher
resistance to corrosion than joints which had been heat-
treated or hardened. For all the investigated types of

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SOV/129-59-4-8/17

Corrosion of Welded Joints of Stainless Steels in Acidic Solutions

heat treatment, short-duration tempering brought about a considerable increase in the total corrosion speed. Stabilization annealing reduces the total corrosion stability of welded joints but in spite of that it is a useful heat treatment in the case of subsequent short-duration tempering in the dangerous temperature range.

2) Welded joints are liable to be affected by concentrated intercrystallite corrosion in the fusion zone. The deepest corrosion is observed in welded joints which have been subjected to a repeated short-duration heating (650°C, 2 hours).

3) In acidic oxidizing solutions an increase of the total speed of corrosion of welded joints is observed for welds which are stabilized with titanium. The metal of a weld joint which has been stabilized with titanium, as well as that of welds not stabilized with titanium, is liable to intercrystallite

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SOV/129-59-4-8/17

Corrosion of Welded Joints of Stainless Steels in Acidic Solutions

corrosion of equal intensity after repeated short-duration heating.

There are 2 figures, 2 tables and 8 references, of which 6 are Soviet and 2 English.

ASSOCIATION: Institut Fizicheskoy Khimii (Institute of Physical Chemistry)

Card 3/3

18.11.30

S/020/60/135/004/031/037
B004/B056

AUTHORS: Kurtepov, M. M., and Gryaznova, A. S.

TITLE: Effect of Metal Ions Upon Corrosion of Stainless Steel
in Concentrated HNO₃ Solutions

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 135, No. 4,
pp. 899 - 901

TEXT: The present paper describes an investigation on the disturbance of the passive state of stainless steel in solutions with high oxidation reduction potentials and in the presence of metal ions of variable valency. Experiments were made with hardened 1X18H9T (1Kh18N9T) type steel in boiling 12 - 16 N HNO₃, to which nitrates or K₂Cr₂O₇ were added. Presence of Cr³⁺ ions raised steel corrosion. It increases with increasing concentration in HNO₃, Cr³⁺ and with the time of contact between steel and solution. Potential shifts toward positive values which permit corro-

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89026

Effect of Metal Ions Upon Corrosion of S/020/60/135/004/031/037
Stainless Steel in Concentrated HNO₃ Solutions B004/B056

sion by overpassivation. The effect of Cr³⁺ is explained by the formation of higher chromium oxides (Cr⁶⁺) having a depolarizing effect. The same was observed when difficultly soluble Cr₂O₃ was added. Fe³⁺ dissolving by corrosion accelerates corrosion, too. Addition of MnC₄⁻ raises corrosion already at low temperatures. Mn²⁺ added to cold HNO₃ has no corrosive effect. However, the latter occurs in boiling HNO₃, due to the formation of manganese ions of higher valency. Ni²⁺ ions, on the other hand, retard the cathodic process and thus decrease the rate of corrosion. According to these observations, corrosion of stainless steel in boiling nitric acid is caused by the presence of metal ions of variable valency (Cr, Mn, Fe). There are 4 figures and 10 references: 6 Soviet, 3 US, and 1 French.

Card 2/3

Effect of Metal Ions Upon Corrosion of
Stainless Steel in Concentrated HNO₃ Solutions B004/B056

S/020/60/135/004/031/037

ASSOCIATION: Institut fizicheskoy khimii Akademii nauk SSSR
(Institute of Physical Chemistry of the Academy of
Sciences USSR)

PRESENTED: June 25, 1960 by V. I. Spitsyn, Academician

SUBMITTED: June 22, 1960

X

Card 3/3

GRYAZNOVA, A.S.

In a factory of communist labor. Tekst. prom. 21 no.1:60-62 Ja '61.
(MIRA 14:3)

1. Zaveduyushchiy tkatskoy fabrikoy No.4 Chernovitskogo tekstil'nogo
kombinata.
(Chernovtsy--Textile factories)

GRYAZNOVA, A.V.

Existence in man of lymphovenous anastomoses between the thoracic duct
and the azygos and hemiazygos veins. Arkh. anat., Moskva 30 no.2:40-44
Mar-Apr 1953. (CLML 24:3)

1. Of the Department of Topographic Anatomy and Operative Surgery
(Head -- Prof. M. D. Zlotnikov), Ivanovo Medical Institute (Director --
Prof. P. P. Erofeyev).

GRYAZHOVA, A.V.

Lymphovenous anastomoses between the thoracic duct and the vena
azygos in dog. Arkh. anat. i embr. 32 no.3:93-95 Jl-S '55
(MLRA 9:5)

1. Iz kafedry topograficheskoy anatomii i operativnoy khirurgii
(zav.-prof. M.D. Zolotnikova) Ivanovskogo meditsinskogo instituta
(dir.-dotsent Ya.M. Romanov)

(THORACIC DUCT, anatomy and histology,
anastomosis with vena azygos in dog)

(AZYGOS, VENAS, anatomy and histology,
anastomosis with thoracic duct in dog)

USSR / Human and Animal Morphology (Normal and Patho- S-5
logical). Blood-Vascular System. Vessels.

Abs Jour: Ref Zhur-Biol., No 17, 1958, 79139.

Author : Gryaznova, A. V.

Inst : Not given.

Title : On the Problem of the Lapse of the Hemiazygos
Vein into the Azygos.

Orig Pub: Sb. nauchn. tr. Ivanovsk. med. in-ta, 1957,
vyp. 12, 338-340.

Abstract: In 60 preparations, it was shown that the upper
and lower hemiazygos veins are connected with
the azygos by 1-5 trunks. The level of the
lapse of the upper and lower of the hemiazygos
veins into the azygos can be found within the
V-XI of the thoracic vertebrae, but more often
within the VI-VIII.

Card 1/1

42

GRYAZNOVA, A.V. (Ivanovsk. in-t.), dr. meditsinskogo, 440, Rv.2)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617130009-4"
variations of the lower thoracic portion of the thoracic duct in man
[with summary in English] Arkh.anat.gist. i embr. 34 no.3:51-55
My-Je '57. (MLRA 10:10)

1. Iz kafedry topograficheskoy anatomi i operativnoy khirurgii
(zav. - doktor meditsinskikh nauk, prof. M.D.Zlotnikov) Ivanovskogo
gosudarstvennogo meditsinskogo instituta (dir. - dots. Ya.M.Romanov)
(THORACIC DUCT. anat. & histol.
variations in man (Rus))

GRYAZNOVA, A.V. (Ivanovo (obl.), ul.Dzerzhinskogo, 40, kv.2)

Ligation of the thoracic lymphatic duct in the dog. Arkh.
anat., gist. i embr. 42 no.5:90-97 My '62. (MIRA 15:6)

1. Kafedra operativnoy khirurgii i topograficheskoy anatomii
(zav. - prof. M.D. Zlotnikov) Ivanovskogo gosudarstvennogo
meditsinskogo instituta.
(THORACIC DUCT---LIGATION)

BECHVARZH, Yaroslav [Bečvář, J.]; GRYAZNOVA, I. [translator].

Czechoslovak metallurgy is being expanded. Metallurg. 6 no.2:
38-40 F '61. (MIRA 14:1)
(Czechoslovakia--Metallurgy)

"APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000617130009-4

GRYAZNOVA, I.A.

Development of the By-Product Coke Industry in Czechoslovakia.
Koks i khim. no.8:59-60 '60. (MIRA 13:8)
(Czechoslovakia--Coke industry)

APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000617130009-4"

CRYAZNOVA, I.A., referent

Planning and design of coke-producing sections in the third five-year plan in Czechoslovakia. Koks i khim. no.11:64 '60.
(MIR13:11)

(Czechoslovakia--Coke industry)

S/138/61/000/004/004/006
A051/A129

AUTHORS: Taranenko, I.T., Gryaznova, I.M.

TITLE: Selection of vulcanized rubber for the production of asbestos friction parts

PERIODICAL: Kauchuk i rezina, no. 4, 1961, 22-24

TEXT: Temperatures of up to 300°C are created when using asbestos friction parts. Thus it is recommended using 42-45% asbestos-containing vulcanizate mixtures in the asbestos-rubber industry. CK6(SKB) butadiene rubber is being used presently for the production of asbestos-containing friction parts. It has the following mixed structure:

-CH₂-CH=CH-CH₂CH₂-CH-CH₂-CH-, with a predominance of up to 60-80% vinyl



side 1,2-links and about 32-40% of 1,4-links. The filled vulcanizates of these rubbers have a comparatively low mechanical strength, but they have the ability to structuralize easily with an increase in temperature.

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S/138/61/000/004/004/006
A051/A129

Selection of vulcanized ...

The latter is probably facilitated by the presence of vinyl side 1,2-links. With an increase in temperature due to the opening of the side double bonds branched lattice structures of the vulcanizate are formed coming close to the structure of more heat-resistant synthetic resins. Synthetic rubbers with a 15-20% content of 1,2 vinyl side-links (CKC-30 (SKS), CKC-30A, CKC-30-1) are less given to structuralizing, although their vulcanizates have better mechanical properties in the filled state. The new CKM (SKI), CKD (SKD) types of synthetic rubbers are hardly given to structuralizing at all, when the temperature is raised. The relationship of the coefficient of friction and wear to the temperature of vulcanizates of equal composition but of various structure was investigated, since a high temperature is created by friction (of about 280-300°C) in asbestos-friction parts. Given data indicate that the most stable and wear-resistant rubber vulcanizates, even at 300°C, are those with the greatest number of vinyl side 1,2-links (SKB-50 and SKN-26). SKN-26 contains 25% of 1,2 links. In addition to the laboratory stand tests, certain stand and road-service tests were carried out on some rubbers to study the effectiveness of the braking of the linings made according to a

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A051/A129

Selection of vulcanized ...

mass-production formulation and SKB, SKS-25 and MVP-5 rubbers, depending on the speed of motion of the automobile and the pressure in the braking system. Fig. 2 shows that the brake linings based on SKB have a higher braking effectiveness. The SKN-26 rubber linings under the same conditions have a lesser braking effectiveness and a somewhat longer braking path than those based on SKB. A study was made of the resistance of vulcanizates made of rubbers of various structure, depending on temperature. Vulcanizates based on rubbers with the greatest number of vinyl side 1,2-links lose their resistance to a lesser extent at high testing temperatures than those with a low content of these links (or none at all). It is concluded that for the production of vulcanizates with industrial frictional properties, thermal stability and wear-resistance rubbers with a maximum amount of 1,2-links, should be applied. A content of 1,2-links of up to 80% is recommended. In this case they could be used for the production of ebonite articles, heavy-duty materials, for combining them with plastics, etc. There are 3 graphs, 1 table and 2 Soviet-bloc references.

Card 3/5

Selection of vulcanized ...

S/138/61/000/004/004/006
A051/A129

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut asbestovykh
tekhnicheskikh izdeliy, g. Yaroslavl'. (All-Union Scientific
Research Institute of Commercial Asbestos Products,
Yaroslavl').

Card 4/5

TARANENKO, I.T.; Prinimala uchastiye: GRYAZNOVA, I.M., khimik

Interaction of oleic and stearic acids with metal oxides. Zhur.
prikl.khim. 35 no.4:922-924 Ap '62. (MIRA 15:4)
(Stearic acid) (Oleic acid) (Metallic oxides)

GRYAZNOVA, I.M.

Labor anesthesia and laceration of the perineum. Akush. gin. no. 1:44-
48 Jan-Feb 1953. (CLML 24:2)

1. Of the Department of Obstetrics and Gynecology (Head -- Prof. I.P.
Zhordanina), Second Moscow Medical Institute imeni I. V. Stalin.

GRYAZNOVA, I.M., kand.med.nauk

Local anesthesia in labor seen from the point of view of the reflex nature of labor. Akush. i gin. 32 no.5:19-23 S-O '56. (MIRA 10:11)

1. Iz kafedry akusherstva i ginekologii (zav. - prof. I.F.Zhordanis) lechebnogo fakul'teta II Moskovskogo meditsinskogo instituta imeni I.V.Stalina.

(LABOR, anesth. and analgesia
local, eff. on labor reflex activity)
(ANESTHESIA, LOCAL
in labor, eff. on reflex activity)

BODYAZHINA, Vera Il'инична, prof.; ZHMAKIN, Konstantin Nikolayevich,
prof.; GRYAZNOVA, I.M., red.; BEL'CHIKOVA, Yu.S., tekhn.red.

[Textbook of gynecology] Uchebnik ginekologii. Moscow, Gos.
izd-vo med. lit-ry, 1958. 366 p. (MIRA 12:1)

1. Kafedra akusherstva i ginekologii I Moskovskogo ordena Lenina
meditsinskogo instituta imeni I.M. Sechenova (for Bodyazhina).
2. Zaveduyushchiy kafedroy akusherstva i ginekologii I Moskovskogo
ordena Lenina meditsinskogo instituta imeni I.M. Sechenova (for
Zhmakin).

(GYNECOLOGY)

"APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000617130009-4

(GRYAZNOVA, I.M., kand. med. nauk (Moskva)

Mechanism of labor in cases of anterior and posterior forms of
occipital presentation. Fel'd. i skush. 24 no.3:48-53 Mr '59.

(MIRA 12:4)

(LABOR (OBSTETRICS))

APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000617130009-4"

PERSIANINOV, L.S., prof.; BAKULEVA, L.P., kand.med.nauk; GRYAZNOVA, I.M.;
VOLIN, Ye.M.

Gas gynecography in the diagnosis of gynecological diseases.
Akush.i gin. no.6:62-66 '60. (MIRA 14:1)

I. Iz kafedry akusherstva i ginekologii (zav. - prof. L.S. Persianinov) lechebnogo fakul'teta i kafedry rentgenologii (zav. - prof. B.A. D'yachenko) II Moskovskogo meditsinskogo instituta imeni N.I. Pirogova.
(GENITOURINARY ORGANS--RADIOGRAPHY) (PNEUMOPERITONEUM, ARTIFICIAL)

SEYAZNOVA, I. M.

SEYAZNOVA, I. M., SALGANIK, R. I., MOROZOVA, T. M., and DREVICH, V. V. (USSR)

"Study of the Effect of Polyvalent Anions on the Resynthesis of Proteins in Insolated Cell Nuclei."

Report presented at the 5th International Biochemistry Congress,
Moscow, 10-16 Aug 1961

GRYAZNOVA, I.M., dotsent

Diagnostic value of gas pelvioradiography. Akush. i gin. 39
no.4:9-16 Jl-Ag'63 (MIRA 16:12)

1. Iz kafedry akusherstva i ginekologii (zav. - chlen-korrespondent AMN SSSR prof. L.S. Persianinov) lechebnogo fakulteta II Moskovskogo meditsinskogo instituta imeni N.I.Pirogova.

GRYAZNOVA, I.M., dotsent; MAZUROVA, V.M.; MGALOBLISHVILI, G.I.

Pelvic phlebography in the diagnosis of some gynecological diseases. Akush. i gin. 40 no.2:94-100 Mr-Ap '64.

(MIRA 17:11)

1. Kafedra akusherstva i ginekologii (zav. - chlen-korrespondent AMN SSSR prof. L.S. Persianinov) i kafedra urologii (zav. - chlen-korrespondent AMN SSSR prof. A.Ya. Pytel') lechebnogo fakul'teta II Moskovskogo meditsinskogo instituta imeni Pirogova.

"APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000617130009-4

GRYAZNOVA, Irina Mikhaylovna; MAZUROVA, V.M., red.

[X-ray pelveography, phlebography and endoscopy in
gynecology] Rentgenopel'veografiia, flebografiia i endo-
skopija v ginekologii. Moskva, Meditsina, 1965. 143 p.
(MIRA 18:8)

APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000617130009-4"

GRYAZNOVA, I.M., kand.med.nauk

Culdoscopy in the diagnosis of gynecological diseases. Akush.i
gin. no.4:66-71 '61. (NIRA 15:5)

1. Iz kafedry akusherstva i ginekologii (zav. - chlen-korrespondent
AMN SSSR prof. L.S. Persianinov) lechebmogo fakul(teta II Moskov-
skogo meditsinskogo instituta imeni N.I. Pirogova.
(ENDOSCOPY) (GYNECOLOGY)

SALGANIK, R.I.; GRYAZNOVA, I.M.; DREVICH, V.F.; MOROZOVA, T.M.

Mechanism of the stimulating effect of polyanions on protein synthesis in isolated cell nuclei following treatment with deoxyribonuclease. Dokl.AN SSSR 145 no.2:453-456 Jl '62.
(MIRA 15:7)

1. Institut tsitologii i genetiki Sibirskogo otdeleniya AN SSSR.
Predstavлено академиком N.N.Semenovym.
(CELL NUCLEI) (PROTEINS) (NUCLEIC ACIDS)

DMITRIYEVA, Ye.P., otv. red.; GRYAZNOVA, M.M., spets. red.

[Processing of wheat meal in potato processing plants]
Opyt pererabotki pshenichnoi muki na kartofelepererabaty-
vaiushchikh zavodakh. Moskva, 1962. 45 p. (NIRA 17:5)

1. Moscow. TSentral'nyy institut nauchno-tehnicheskoy in-
formatsii pishchevoy promyshlennosti.

RAPOPORT, I.B.; ZHAROVA, Ye.Ya.; VELIZAR'YEVA, N.I.; GRYAZNOVA, N.N.;
GUBENKO, I.B.; MOSHKIN, P.A.

Fatty alcohols from the products of oxidation of solid paraffins.
Khim. i tekhn. topl. i masel 10 no.12:18-22 D '65.

(MIRA 19:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke
nefti i gazov i polucheniyu iskusstvennogo zhidkogo topliva.

NISNEVICH, R.; GRYAZNOVA, R.

A nonshop factory. Sov. profsoiuzy 7 no.11:28-29 Je '59.
(MIRA 12:9)

1. Glavnyy inzhener Kazanskoy tabachnoy fabriki (for Nisnevich).
2. Predsedatel' fabrichnogo komiteta Kazanskoy tabachnoy fabriki (for Gryaznova).
(Kazan--Tobacco industry--Labor productivity)

GRYAZNOVA, S. V.; PANCHENKOV, G.M.; PARBUZIN, V. S.; NIKITIN, O. T.;

"Trennung der Isotope des Wasserstoffs an Kobalt-Molekularsieben"

Third Working Conference on Stable Isotopes 28 October to 2 November 1963, Leipzig.

GRYAZNOVA, S. V.; PANCHENKOV, G. M.; KUZNETSOVA, Ye. M.;

"Zur Frage der Isotopentrennung durch Extraktion"

"Berechnung des elementaren Isotopentrennfaktors bei Isotopenaustauschreaktionen und bei der Destillation."

Third Working Conference on Stable Isotopes, 28 October to 2 November 1963, Leipzig.

GRYAZNOVA, T.A., aspirant

Healing processes in cavitary pulmonary tuberculosis; data of
a tuberculosis dispensary. Probl.tub. 37 no.3:35-43 '59.
(MIRA 12:6)

1. Iz kafedry tuberkuleza (zav. - prof.I.A.Shaklein) Sverdlov-
skogo meditsinskogo instituta (dir. - prof.A.F.Zverev).
(TUBERCULOSIS, PULMONARY, pathol.
cavitation, healing processes (Rus))

GRYAZNOVA, T.A., aspirant

Work capacity of patients cured of fibrocavernous and infiltrative forms of pulmonary tuberculosis in disintegration phases.
Probl.tub. 37 no.5:10-17 '59. (MIRA 12:10)

1. Iz kafedry tuberkuleza (zav. - prof.I.A.Shaklein) Sverdlovskogo meditsinskogo instituta (dir. - prof.A.F.Zverev).
(TUBERCULOSIS, PULMONARY - therapy)

GRYAZNOVA, T.A.; TSIMBALENKO, Yu.I.

Experience in tuberculosis control in the Ural Heavy Machinery Plant.
Probl. tub. no.2:19-22 '64. (MIRA 17:12)

J. Sverdlovskiy nauchno-issledovatel'skiy institut tuberkuleza (dir. -
prof. I.A.Shaklein) i protivotuberkuleznyy dispanser No.4 Sverdlovska
(glavnnyy vrach R.M.Lesnykh).

GRYAZNOVA, T. YE,

38T47

USSR/Geology
Hydrology

Nov 1947

"Methods for the Study of the Orientation of Particles
in Gravel Deposits," T. Ye. Gryaznova, All-Union Pe-
troleum Geological Prospecting Institute, Leningrad,
38 pp

"Dok Ak Nauk" Vol LVIII, No 4

Anthon noticed that in a flow of water current the
particles of gravel that are moved about have the
property of orienting themselves. His object was to
explain nature and substance of this phenomenon of
orientation. He made use of the Kembro-Silurysk
gravel banks of the Seblinki River, Leningrad Oblast,
to obtain the data. Submitted by Academician D. S.
Belyankin, 15 May 1947. FDS

38T47

NEYMAN, R.S.; GRYAZNOVA, V.I.

Structure of viscose fibers. Khim.volok. no.5:47-50 '61.

(MIRA 14:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut iskusstvennogo
volokna.

(Rayon)

PANFILOVA, M.M.; GRYAZNOVA, V.I.

Determining the nonuniformity of yarn thinness with the Uster
tester. Khim. volok. no.3:58-60 '63. (MIRA 16:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut iskusst-
vennogo volokna.

(Yarn—Testing)

GRYAZNOVA, V.P.(Ivanovo)

Nonspecific pathoanatomical changes in the brain in pulmonary tuberculosis. Prob.tub.no.4:59-62 J1-Ag '55. (MLRA 8:10)

1. Iz kafedry patologicheskoy anatomii (zav.-prof. P.P.Yerofeyev)
Ivanovskogo meditsinskogo instituta.
(TUBERCULOSIS, PULMONARY, compl.
brain changes)
(BRAIN, dis.
pathol.changes caused by pulm.tuberc.)

GRYAZNOVA, V.P.

Patho-morphological changes in the cranial nerves in patients with
tuberculous meningitis treated with streptomycin and other drugs.
Probl. tub. 38 no.1:96-103 '60. (MIRA 13:10)
(MENINGES-TUBERCULOSIS) (NERVES, CRANIAL)

CHYAZNOVA, V.P. (Donetsk)

Pathomorphological changes in the central nervous system in prolonged compression of the extremities; experimental study.
Arkh. pat. 27 no.4:66-73 '65. (MIRA 18:5)

1. Donetskij nauchno-issledovatel'skij institut travmatologii i ortopedii (dir. - kand.med.nauk T.A.Revenko).

BAYULA, A.G.; GRYAZNOVA, V.T.

Use of chlorinated roasting for the production of highly standardized tin products from polymetallic ores of the Maritime Territory. Soop. DVFAK SSSR no. 15:43-46 '62. (MIRA 17:9)

1. Dal'nevostochnyy filial imeni Komarova Sibirskogo otdeleniya AN SSSR.

1. U.S.S.R. C.I.H., No. 1.
 2. USSR (600)
 4. Alkaloids
 7. Loss of alkaloids during their extraction from organic matter.
Avt. delo no. 5, 1952
9. Monthly List of Russian Accessions, Library of Congress, January 1953. Unclassified.

4c.

Zornovala kapata (Yugorians) - Norka, Sel'chikov, Tyk. 1941.

See: Monthly List of Russian Accessions, Vol. 7, No. 7, 1941.

GRYAZNOVA, E.A.

✓ Colorimetric determination of copper with organic reagents
in chemico-legal investigations. A. I. Shinkareiko, E. A.
Gryaznova, and L. A. Podkolzina (Pharm. Inst., Tomsk
Univ.). *Avtor. Delo* 3, No. 4, 31-4 (1954).

The org. matter is destroyed by the Stepanov method. Without removing the HNO₃, the soln. is dild. 10-fold; 20 cc. is transferred to a beaker, followed by 5 cc. of a 20% soln. of Na citrate and rendered slightly basic with NH₄OH. Two cc. of a 0.6% alc. soln. of dithiodioxime-HCl is added, and the beaker is heated on a water bath at 50° for 1 hr. and put aside for 4 hrs. or overnight. The flocculent ppt. contg. Cu and possibly Co and Ni is filtered off and washed with 1% soln. of NH₄Cl, the wet filter is transferred to a crucible, slightly dried, and treated with a few drops of concd. H₂SO₄. The acid is evapd., and the residue is ashed in an elec. furnace. To the ash is added a few drops of HCl and enough water to make the vol. 15 cc. The soln. is transferred to a separatory funnel, followed by 1 cc. of a 1% soln. of Na citrate, a few drops of NH₄OH, and 1 cc. of an aq. soln. of Na diethyldithiocarbamate. After mixing, 5 cc. of CHCl₃ is added, the funnel shaken for 1 min., and the extn. repeated once more with another 5 cc. The CHCl₃ soln. is matched with appropriate standards. A. S. Mirkin

CRYAZHOVA, Ye.A.; ZASORINA, T.A.

Rare case of allergic reaction in the processing of Thermopsis lanceolata and in its medical use. Gig.truda i prof.zab. 3 no.4:51-52 Jl-Ag '59. (MIRA 12:11)

1. Farmatsevticheskiy institut, Pyatigorsk.
(THERMOPSIS LANCEOLATA--TOXICOLOGY)

GRYAZNOVA, Ye.A.; BELIKOV, V.G.

Detection and determination of aniline in medicolegal investigations.
Sud.-med.ekspert. 2 no.4:39-43 O-D '59. (MIRA 13:5)

1. Kafedry sudebnoy khimii (zav. - dotsent Ye.A. Gryaznova) i
farmatsevticheskoy khimii (zav. - dotsent V.N. Bernshteyn) Pyati-
gorskogo farmatsevticheskogo instituta.
(ANILINE--ANALYSIS)

GARAPOV, E.F.; GRYAZNOV, Yu.N.; LOROFEYEV, G.A.

Errors occurring in the graduation of γ -dosimeters in a
collimated beam. Atom. energ. 17 no. 5:410-412 N '64.

(MIRA 17:12)

USSR/Kinetics - Combustion. Explosions. Topochemistry. Catalysis. B-9

Abs Jour : Referat Zhur - Khimiya, No 6, 1957, 18637

Author : G.M. Panchenkov, Z.V. Gryaznova, V.M. Yemel'yanova.

Inst : Academy of Sciences of USSR.

Title : Study of Cumene Cracking on Deuterized Alumosilicate Catalysts.

Orig Pub : Dokl. AN SSSR, 1956, 109, No 2, 325-328

Abstract : Cumene cracking was investigated in a flow system at 450° on three deuterized catalysts: Al_2O_3 (I), SiO_2 (II) and an alumosilicate catalyst (III) of the composition 36.75% of Al_2O_3 and 67.25% of SiO_2 prepared of the same gel as I and II. The determination of the quantitative composition of the reaction products and their contents of deuterium was carried out. It was found that the speed of hydrogen interchange between the catalyst III and cumene at 350 to 500° did not depend much on the temperature and that it was very close to the interchange

Card 1/2

- 280 -

USSR/Kinetics - Combustion. Explosions. Topochemistry. Catalysis. B-9

Abs Jour : Referat Zhur - Khimiya, No 6, 1957, 18637

speed of the reaction products - benzene, propylene and their equimolecular mixtures - under analogous conditions. The authors assume that the deuterium interchange reaction on the catalyst III was independent and proceeded independently of the cracking reaction. The interchange reaction was observed on I under corresponding conditions, but the cracking reaction did not take place; none of these reactions occurred on II.

Card 2/2

- 281 -

"APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000617130009-4

Cracking of cumene over deuterated aluminum oxide
catalyst, G. M. Pungmenkov, Z. V. Chivayanova and V. M.
Emelyanova. Proc. Acad. Sci. U.S.S.R., Ser. Chem., 104,
397-400 (1956) (English translation). See C.A. 51, 1870s.

B.M.R.

APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000617130009-4"

614120009,2 V.

✓ Translations of problems on desorption studies
and catalysts. G. M. Franks and E. V. Gershman,
L. G. Ganichenko, Proc. Acad. Sci. U.S.S.R., Ser. Chem.
109, 445-8 (1960) (English translation). See C. A. 51
(1965).

km JF

5
9050 C (J)
5 M 12/1

(E) RYAZNOVA, Z. V.

✓ Transformations of cyclohexene over deuterated aluminum silicate catalyst. G. M. Kudryavtsev, Z. V. Ryazanova, and L. G. Ganichenko (M. V. Lomonosov State University, Moscow, Doklady Akad. Nauk S.S.R., 109, 646-9 (1956). — A catalyst of 35.5% Al_2O_3 and 0.5% SiO_2 containing 186 milliequivalents D/10³ g. was used for transformation of cyclohexene passed over it at 950°. Examining of the catalysts showed that with increasing specific velocity of feed the transformation of cyclohexene tends to decrease, and D-I exchange is severely hindered. The Al_2O_3 component is the active principle of this catalyst. G. M. Kudryavtsev

PANCHENKO, G. M., GAVAINOVA, L. V., YAKOVLEV, V. N., SAMOJLOV, I. A.

"Conversion of Hydrocarbons on Deuterated Alumino-silicate Catalysts."

Problemy Kinetiki i Katalizma, t. 9, Kataliz i Katalitiki, Moscow, Izdatelstvo AN SSSR, 1957, 442p.

Most of the papers in this collection were presented at the Conference on Catalysis in Deuterium which took place in Moscow, May 21-24, 1956.

PANCHENKOV, G.M.; GRYAZNOVA, Z.V.; YEMEL'YANOVA, V.M.; OANICHENKO, L.G.

Conversion of hydrocarbons on deuteriated alumino silicate catalysts.
Probl. kin. i kat. 9:145-151 '57. (MIRA 11:3)
(Deuterium) (Catalysts) (Chemical reaction, Rate of)

AUTHORS: Panchenkov, G. M., Gryaznova, Z. V. and Kuvshinnikov, 20-114-6-38/54
I. M.

TITLE: Ionic Exchange on Aluminum-Silicate Catalysts in an Alkali Current With Short Duration of Contact (Ionnyy obmen na alyumosilikatnykh katalizatorakh v potoke shchelochi pri malykh vremenakh kontakta)

PERIODICAL: Doklady AN SSSR, 1957, Vol. 114, Nr 6, pp. 1276-1279 (USSR)

ABSTRACT: It was hitherto not possible to determine completely the nature of the aluminum-silicate catalysts which are very important for industry (references 1 - 9). The present work studies the mechanism and the kinetics of the process mentioned in the title under dynamic conditions in an alkaline (NaOH-, LiOH-, and KOH-solutions of various concentrations and velocities of flow) and a neutral medium. For this purpose the authors used the industrial catalysts ($14\% \text{Al}_2\text{O}_3 + 86\% \text{SiO}_2$) and ($37\% \text{Al}_2\text{O}_3 + 63\% \text{SiO}_2$). Several portions were annealed at 500, 750, 1100 and 1300°C. Figures 1 and 2 give the experimental results in an alkaline medium. From figure 1 follows that an ordinary saturation curve is obtained. Its initial section is expressed by 2 straight lines with good

Card 1/4

Ionic Exchange on Aluminum-Silicate Catalysts in an Alkali 20-114-6-38/54
Current With Short Duration of Contact

approximation. The value of the tangent of the inclination angle (V) of the second section depends on the velocity of flow and is proportional to the concentration of the solution. The velocity of the ionic exchange also depends on the degree of the previous heat treatment of the catalyst. Based on these tests it may be stated that a catalyst with a constant activity can be obtained by annealing at $500 - 700^{\circ}\text{C}$ for at least 16 hours. Kinetic curves of the ionic exchange of aluminum-silicate catalysts which were deactivated by annealing at $1100 - 1300^{\circ}\text{C}$ have no break in their initial section. The most probable cause of the break in the kinetic curves is the difference of the accessibility of the exchangeable centers of the catalyst at the surface and those lying deeper (within the pores and between the packs). In this case the break might be explained by the completed neutralization of the surface centers. Their number can be graphically represented (table 2). In the case of sufficiently low alkali concentrations (up to 0,015 n) alkali is almost completely neutralized by the hydrogen ions of the surface. These ions are neutralized first, those lying deeper subsequently. A non-annealed catalyst has a maximum acidity

Card 2/4

Ionic Exchange on Aluminum-Silicate Catalysts in an Alkali 20-114-6-38/54
Current With Short Duration of Contact

and possesses the maximum number of exchange centers in general and especially at the surface. For an alkali concentration of about 0,1 n part of the alkali is used for the solution of the catalyst (reference 10). From the results it is to be seen that the slowest stage of the entire process is the diffusion into the interior of the pores. In the point of break, after the terminated surface-neutralization, the velocity of exchange is determined by the diffusion into the interior of the pores alone. Thus an abrupt change of the velocity of process is the cause of the broken instead of the slightly bent curves. This is confirmed by the ionic exchange in the neutral medium. The break of the curves is absent here, as the exchange proceeds about 10^3 fold slower. It is also absent in the curves of a crushed catalyst, which also furnishes a confirmation of what has been said. Thus one comes to the conclusion that the concentration of the outer active centers on the aluminum-silicate catalyst may easily be determined when it is neutralized with an alkali solution. The method is, however, only usable when the velocities of the ionic exchange at the surface and in the interior of the

Card 3/4

Ionic Exchange on Aluminum-Silicate Catalysts in an Alkali
Current With Short Duration of Contact

20-114-6-38/54

pores are highly different. Thus it is not suitable for all acid and oxide catalysts. There are 2 figures, 2 tables, and 11 references, 8 of which are Slavic.

ASSOCIATION: Moscow State University imeni M. V. Lomonosov (Moskovskiy gosudarstvennyy universitet imeni M. V. Lomonosova)

PRESENTED: January 19, 1957, by A. V. Topchiyev, Academician.

SUBMITTED: January 9, 1957

Card 4/4

"APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000617130009-4

GREAZONOV, Z.V. [Gryaznova, V.]; PANCENKOV, G.M. [Panchenkov, G.M.]

Catalytic structure and activity of hydrated aluminosilicates.
Analele chimie 15 no.2:161-187 Ap-Je '60. (EEAI 9:11)
(Aluminosilicates) (Hydration) (Catalysts)

APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000617130009-4"

5.1190

S/076/60/034/06/20/040
B015/B061

AUTHORS: Panchenkov, G. M., Gryaznova, Z. V. (Moscow)

TITLE: Deuterium - Hydrogen Exchange and the Cracking
Reaction of Cumene on Alumosilicate CatalystsPERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol. 34, No. 6,
pp. 1280-1285

TEXT: Many researchers connect the activity of the alumosilicate catalysts with the presence of proton acids of the Brönsted type. In order to explain the role of the proton in the cracking on alumosilicate catalysts, the hydrogen in the catalyst was exchanged in this case for deuterium, and the cracking of cumene and the isomerization of cyclohexene were examined. The experiments were carried out with deuterium substituted Al_2O_3 , SiO_2 and two alumosilicate catalysts. As the results of the tests (Refs. 17, 18) have already been announced at the Conference on the Use of Isotopes for Catalysis (Ref. 19), only basic data are given in this paper. On the alumosilicate catalyst with 190 milliequivalent deuterium

Card 1/3

575

Deuterium - Hydrogen Exchange and the Cracking
Reaction of Cumene on Alumosilicate Catalysts S/076/60/034/06/20/040
B015/B061

per 100 g catalyst, it was established that the kinetics of the isomerization of cyclohexene obey G. M. Panchenkov's equation (Refs. 20-23). No simple connection between the catalytic conversion and the deuterium - hydrogen exchange could be determined. The action of the temperature and duration of calcination on the separation of water from the catalyst were examined (Table 1, results). A catalyst calcined at 700°C, which contained 0.8-0.9% water, was used for the investigations of cumene cracking and the deuterium - hydrogen exchange. The results (Table 2) show that the activity of the catalyst reaches a maximum at 0.1-0.2% adsorbed water. As the deuterium - hydrogen exchange is most intense on the alumosilicate catalyst, less intense on Al_2O_3 , and does not occur at all on SiO_2 , it is assumed that the alumosilicate centers play an important part in the exchange. Tests with deuterium dioxide showed that a 100% exchange takes place, whilst only 50% of the hydrogen is exchanged from the structural water of the catalyst by gaseous deuterium (tests by V. S. Kravchenko). Finally, L. N. Gorokhov is thanked for mass spectrometric measurements. M. A. Kaliko is mentioned in the text. There are 2 figures, 2 tables, and 26 references: 13 Soviet, 12 American, and

Card 2/3

Deuterium - Hydrogen Exchange and the Cracking
Reaction of Cumene on Alumosilicate Catalysts

S1575
S/076/60/034/06/20/040
B015/B061

1 Canadian.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova
(Moscow State University imeni M. V. Lomonosov)

SUBMITTED: August 18, 1958

Card 3/3

✓

KUZNETSOVA, Ye.M.; GRYAZNOVA, Z.V.; PANCHENKOV, G.M.

Calculation of the single-separation coefficient for some chemical
exchange reactions. Dokl. AN SSSR 148 no.1:144-147 Ja '63.
(MIRA 16:2)

1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova.
Predstavлено академиком A.N. Prumkinym.
(Isotope separation)

GRYAZNOVA, Z.V.; PANCHENKOV, G.M.; BELOKONEV, S.V.

Application of N.A.Shilov's formula for calculating the velocity of
adsorption front motion in a countercurrent of sorbate and sorbent.
Zhur.prikl.khim. 38 no.6:1395-1396 Je '65.

(MIRA 18:10)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova.

GRYAZNOY, F.D.

Overall electrical mechanization of large poultry houses
for 10 to 20 thousand layers in the run system of maintenance.
Sbor. nauch.-tekhn. inform. po elektr. sel'khoz. no.16/17:
52-57 '64. (MIRA 18:11)

GRYAZNUKHIN, A.N.

Results of releasing Vitim sables in the region of the southwestern
spurs of the Verkhoyansk Range. Trudy Inst.biol.IAFAN SSSR no.4:
143-171 '58. (MIRA 11:11)
(Verkhoyansk Range--Sables)

"APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000617130009-4

GRYAZNUKHIN, A.N.

Materials on the reproduction of the Vitim sable stocks in the
region of the southwestern spurs of the Verkhoyansk Range. Nauch,
soob. IAFAN SSSR no.5·71-77 '61. (MIRA 14:12)
(Verkhoyansk Range--Sables)

APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000617130009-4"

VAINTSKIY, V.V. [Vaintsky, V.V.]; S. M. KALININA, Yu. A. [S. M. Kalinina, K.A.];
BLITSER, V.A. [Blitser, V.A.]

Kinetics of the conversion of fibrinogen to fibrin. Ukr. biokhim.
zhur. 36 no.1:3-13 '64. (MIR 17:12)

I. Institute of Biochemistry of the Academy of Sciences of the
Ukrainian S.S.R., Kiev.

GRYADUNUKHINA, V. A.; REPLITSER, V. A.

Kinetic study of the enzymatic clotting of fibrinogen. Biokhimika
30 no.4:696-704 Jl-Ag '65. (MIRA 18:8)

I. Institut biokhimii AN UkrSSR, Kiyev.

ACC NR: AP7001334

SOURCE CODE: UR/0428/66/000/004/0095/0105

AUTHOR: Grybkowski, V. P.

ORG: none

TITLE: Dependence of the absorption and luminescence of intrinsic semiconductors on the intensity of the exciting light

SOURCE: AN BSSR. Vestsi. Seryya fizika-matematychnykh navuk, no. 4, 1966, 95-105

TOPIC TAGS: semiconductor band structure, light absorption, light excitation, polarized luminescence, semiconductor carrier, laser application

ABSTRACT: The article deals with an intrinsic isotropic semiconductor excited by linearly polarized light in a narrow spectral interval. The distribution of the electrons over the energy level of the conduction band and of the valence band is described by the Fermi-Dirac function with two unequal Fermi quasilevels. The dependence of the absorption coefficient and of the luminescence power on the intensity of the exciting light and on the temperature is investigated by solving two equations: the neutrality equation and the velocity equation, which takes into account the absorption, the stimulated emission of light, and the spontaneous emission of light in the stationary mode. For low temperatures, analytic solutions of the two equations are obtained, and results of a numerical calculation are presented for non-zero temperatures. It is shown that the degree of excitation of the crystal is independent of the electron and hole recombination time, which is inversely proportional to:

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the matrix element of the transition, and that existing laser light sources are capable not only of bleaching semiconductor crystals, but also of obtaining appreciable amplification coefficients. The author thanks Academician AN BSSR B. I. Stsyapanav (B. I. Stepanov) for valuable advice and a detailed discussion of the work. Orig. art. (v.v.s: 3 figures and 23 formulas.

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